



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
CITY VIEW PLAZA, SUITE 7000
#48 165 RD. KM 1.2
GUAYNABO, PR 00968-8069

JUN 23 2015

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Article Number: 7009 2250 000 9163 5638

Irma López
Executive Director
Compliance and Quality Control Directorate
Puerto Rico Aqueduct and Sewer Authority
P.O. Box 7066
San Juan, Puerto Rico 00916-9990

**Re: Compliance Evaluation Inspection
Guánica Wastewater Treatment Plant
NPDES Permit Number PR0020486**

Dear Mrs. López:

On June 3, 2015, the United States Environmental Protection Agency (EPA) conducted a Compliance Evaluation Inspection (CEI) at the Guánica Wastewater Treatment Plant. The purpose of the inspection was to assess PRASA's operational and maintenance practices at the facility.

Enclosed you will find a copy of the Water Compliance Inspection Report, which summarizes our findings during the CEI. Within forty five (45) calendar days of receipt of this letter, please respond with the actions PRASA has taken or will be taken to address the findings of the inspection.

Should you have any questions, feel free to contact me or Miguel A. Batista of my staff at (787) 977-5823.

Cordially,

Jaime A. Géliga
Chief

Municipal Water Programs Branch
Caribbean Environmental Protection Division

Enclosure

cc. Wanda García, EQB
Juan Rodríguez, PRASA
Jeannette Vélez, PRASA



United States Environmental Protection Agency
Washington, D.C. 20460
Water Compliance Inspection Report

Form Approved.
OMB No. 2040-0057
Approval expires 8-31-98

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2 5 3 P R 0 0 2 0 4 8 6 11 12 1 5 0 6 0 3 17 18 C 19 R 20 1					
Remarks					
2					
Inspection Work Days Facility Self-Monitoring Evaluation Rating B1 QA -----Reserved-----					
6 2 0 69 70 1 71 72 73 74 75 80					

Section B: Facility Data

Name and Location of Facility Inspected (for industrial users discharging to POTW, also include name and NPDES permit number)	Entry Time/Date	Permit Effective Date
GUÁNICA WASTEWATER TREATMENT PLANT YAGUER ST. Guánica, P.R. 00653	10:30 am 06/03/2015	12/01/2008
	Exit Time/Date	Permit Expiration Date
	1:00 pm 06/03/2015	11/30/2013
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)	Other Facility Data	
787-821-2865 See attached report for on-site representative		
Name, Address of Responsible Official/Title/Phone and Fax Number(s)		
Héctor Gierbolini, Executive Regional Director PRASA South Region		
Contacted <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Operations & Maintenance	CSO/SSO (Sewer Overflow)
<input checked="" type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Self-Monitoring Program	<input checked="" type="checkbox"/> Sludge Handling/Disposal	Pollution Prevention
<input checked="" type="checkbox"/> Facility Site Review	Compliance Schedules	Pretreatment	Multimedia
<input checked="" type="checkbox"/> Effluent/Receiving Water	Laboratory	Storm Water	Other: Pump Stations

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

See attached report for findings.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
 Miguel A. Batista, Environmental Engineer	CEPD-MWPB (787) 977-5823 (ph) ; (787) 289-7104 (fax)	6-19-15
Signature of Management Q A Reviewer	Agency/Office/Phone and Fax Numbers	Date
 Jaime A. Gélida, Chief Municipal Water Programs Branch	CEPD-MWPB (787) 977-5840 (ph) ; (787) 289-7104 (fax)	6-19-15

**Summary of Findings/Comments
Water Compliance Inspection Report Form
(EPA Form 3560-3)**

COMPLIANCE EVALUATION INSPECTION

Facility Name: Guánica WWTP
NPDES Permit Number: PR0020486
PRASA Representative: Julio I. Fraticelli, Plant Operator
Amalio Quirós, Plant Operator
Rosalía Torres, Compliance Specialist

I. BACKGROUND

A Compliance Evaluation Inspection (CEI) was conducted on June 3, 2015 at the Guánica WWTP. The CEI consisted of an opening interview to discuss the purpose of the inspection and to request information about the facility. The inspection consisted of a site tour to assess the operational and maintenance conditions, document's review, and a closing interview to discuss preliminary findings. Finally, a grab sample of the effluent was collected to determine compliance with the effluent limitations established by the permit at the time of the inspection.

II. PLANT OPERATION AND MAINTENANCE

The Guánica WWTP consists of two treatment modules. One module is a 0.5 MGD activated sludge conventional package plant (Old Plant) and the second module is a 1.25 MGD Biological Nutrient Removal (BNR) treatment plant (New Plant). At the time of the CEI, the BNR module (New Plant) was not in operation.

At the time of the inspection, Mr. Julio I. Fraticelli and Mr. Amalio Quirós were acting as Plant Operators for the Guánica WWTP. Mr. Fraticelli has obtained the certification as a Wastewater Treatment Plant Operator Level IV # 2249 which expired on March 15, 2015. Mr. Fraticelli is waiting for the renewal of his certification. Mr. Quirós has obtained the certification as a Wastewater Treatment Plant Operator Level IV # 2099 which expires on April 22, 2017.

Judge Order Prohibiting Reprisals was placed in the bulletin board of the facility as required by the Court.

III. FACILITY SITE REVIEW – SUMMARY OF FINDINGS

A. Preliminary Treatment

1. Bar Screens/Comminutors

- i) The plant has two entrance channels: one channel has a bar screen, and the other channel has a comminutor.
- ii) The entrance channel with the bar screen is used when the comminutor goes out of service.
- iii) At the time of the CEI, the bar screen was not in use. The comminutor was in operation.

2. Influent Wet Well/Influent Pumps

- i) The wet well was clean, and had no solids.
- ii) The plant has six (6) influent pumps: three (3) for the old plant, and three (3) for the new plant. Two out of three influent pumps for the new plant were in operation. The three units for the old plant were in service.

3. Grit Removal Mechanism

- i) The facility has two (2) Pista type grit removal systems. Both units were out of service, and waiting for cleaning.
- ii) The screw conveyor to collect the grit from both grit removal systems was on stand-by mode, but operable.

B. Secondary Treatment

1. Activated Sludge Module

- i) Grease and sludge bulking were observed at the surface of the clarifier.
- ii) Grease and solids were observed at the clarifier's center well or inner baffle.
- iii) Short-circuiting was observed at some areas of the clarifier's "V-type" effluent weirs.
- iv) Sprayers of the distribution pipeline were tested and found operable.
- v) The plant has three (3) blowers. Units # 1 and # 2 were in operation. Blower # 3 will be replaced.

C. Chlorination/De-chlorination Facilities

- i) There are three (3) chlorine contact chambers at the facility. The chlorine contact chamber # 1 was in operation. Units # 2 and # 3 were on stand-by mode.
- ii) The chlorine inventory at the time of the inspection consisted of four (4) - two thousand gallon pound chlorine cylinders (2,000 lbs): one (1) chlorine cylinder was in use, one (1) chlorine cylinder was empty, and two (2) chlorine cylinders were full.
- iii) The plant has two (2) chlorine leak detectors as reference instruments. When a chlorine leak was simulated, both units did work. The chlorine leak detectors calibration will expire in October/2015.
- iv) The exhaust fan was tested, and it was found operable.
- v) The automatic chlorine dosifier device was in operation. Its calibration will expire in October/2015.
- vi) The chlorine scale was in operation. Its calibration will expire in October/2016.
- vii) The crane for the chlorine gas cylinders was out of service.
- viii) The non-potable water pipeline had a water leak.

D. Sludge Handling

- i) The aerobic digester chamber was in operation. Solids accumulation was not observed at its surface.
- ii) The plant has two (2) unroofed sludge drying beds. At the time of the CEI, one unit was empty, and one unit was full.
- iii) The sludge belt filter press was on stand-by mode, but in operable condition.

E. Alternate Power Units (APU)

- i) The new 750 KVA Alternate Power Unit (APU) has a 5,000-gallon diesel tank capacity.
- ii) The addition of water for the new APU's radiator, still results unsafe for the operator who needs to stand on the APU's motor to perform this task. This unit has no stairs or a safe mechanism to access it. This finding has been observed since the inspection conducted on May 7, 2013.
- iii) The power outage simulation was not performed.

F. Auto-Samplers

- i) This facility has two (2) auto-samplers. At the time of the CEI, the temperature inside influent auto-sampler was 3 °C, and the temperature inside the effluent auto-sampler was 4 °C. Both temperatures were within the acceptable range of less or equal to 6 °C.
- ii) The influent and effluent sampling hoses looked clean.
- iii) The calibrations for the auto-sampler thermometers will expire in November 11, 2015.

G. Daily Sampling Meters

- i) The dissolved oxygen, the colorimeter, the turbidimeter, the pH and the residual chlorine meters were in good operational conditions.
- ii) The calibration for the above-mentioned equipment will expire in October/2015.

H. Flow Measuring Devices

- i) The primary flow measuring device being used at the facility is a Parshall flume.
- ii) A flow totalizer and a chart recorder were being used as secondary flow measuring devices.
- iii) The calibration for the effluent flow totalizer will expire in July/2015.
- iv) The chart recorder's calibration will expire in October/2015.

I. Effluent Quality

A grab sample of the effluent was taken by the operator at sampling point 001 during the inspection. Effluent was clear, no solids were observed. The results of the effluent sample taken during the inspection were as follows:

- a. Residual chlorine – 0.05 mg/l.
- b. pH – 7.50 S.U.
- c. Temperature - 29.0 °C.
- d. Dissolved oxygen (DO) – 7.10 mg/l.
- e. Settleable solids- 0.00.
- f. Turbidity – 1.42 NTU.

IV. RECORDS REVIEW

A. A copy of the NPDES permit was available at the plant.

B. Process Control, Sampling and Compliance Data Record

1. Copies of the daily sampling average reports were available for review.
2. A review of the DMRs for the period of April 2014 to March 2015 revealed the following exceedances:
 - March/2015 – Arsenic, Copper, Cyanide Free, Total Nitrogen.
 - February/2015 – Arsenic, Copper.
 - January/2015 – Arsenic, Copper, Cyanide Free, Total Nitrogen.
 - December/2014 – Copper, Cyanide Free, Sulfide.
 - November/2014 – Arsenic, Copper, Total Nitrogen.
 - October/2014 – Arsenic, Copper, Total Nitrogen.
 - September/2014 – Arsenic, Copper, Total Nitrogen.
 - August/2014 – Arsenic, Copper, Total Nitrogen.
 - July/2014 – Copper, Total Nitrogen, Cyanide Free.
 - June/2014 – Sulfide-Hydrogen, Copper, Total Nitrogen.
 - May/2014 – Copper, Total Nitrogen.
 - Apr/2014 - Copper, Total Nitrogen.
3. Copies of the monthly sampling itineraries and sampling records were available for randomly review. Documents appeared to be updated.
4. Copies of the auto-samplers maintenance records and chain of custody data were available for review. Documents appeared to be updated.

C. Maintenance Records

1. Equipment operational status checklist (Form AAA-48) - The equipment operational status is being check on a daily basis.
2. The following tables details the status of the equipment that was out of operation or in malfunction at the time of the previous inspection (RI conducted on December 5, 2014):

a) Non Potable Water Pit Building

EQUIPMENT	DATE	NOTIFICATION # SAP #	COMMENT	STATUS
Pump/Motor NPW # 2	Aug/24/2014	10277106 1120889	Not working properly.	Corrected on Dec/16/15.

b) BNR Building – Filter Press

EQUIPMENT	DATE	NOTIFICATION # SAP #	COMMENT	STATUS
Pump/Motor Sludge # 1	Oct/11/2014	10287502 208767	Leak. Squeaky noise.	Corrected on Jan/23/15.
Pump/Motor Sludge # 2	Oct/11/2014	10287503 208768	Leak. Squeaky noise.	Corrected on Jan/23/15.
Filter Press	Jun/25/2013	10184561 1107285	Corroded angular structure.	Not corrected.
Hydraulic Press Motor System	Oct/23/2014	10294191 207993	Not working properly.	Corrected on Jan/20/15.
Transmission	Jun/25/2013	10184564 1112468	Corroded chains.	Corrected on Mar/9/15.
Booster Pump Polyblend	Oct/11/2014	10287504 1113590	Squeaky noise.	Corrected on Feb/19/15.
Polymer Pump Polyblend	Oct/12/2014	10287499 1113743	Leak.	Corrected on Dec/19/14.

3. At the time of the CEI, the following equipment was found out of operation or in malfunction:

a) Chlorination Building

EQUIPMENT	DATE	SAP #	NOTIFICATION #	COMMENT
Potable Cl ₂ Booster Pump	May/18/2015	1124542	10331262	Water leak.
Chlorine Gas Cylinder Crane	May/13/2015	209288	10330191	Motor out of service.

b) Non Potable Water Pit Building

EQUIPMENT	DATE	SAP #	NOTIFICATION #	COMMENT
Pump/Motor NPW # 1	Apr/23/2015	1124541	10326728	Check valve.

c) Influent Dry Pit BNR Building

EQUIPMENT	DATE	SAP #	NOTIFICATION #	COMMENT
Pump/Motor Degritter # 1	May/13/2015	208765	10330755	Malfunction.
Paddle Drive Degritter # 1	May/13/2015	209655	10330704	Malfunction.

EQUIPMENT	DATE	SAP #	NOTIFICATION #	COMMENT
Paddle Drive Degritter # 2	Feb/16/2015	209656	10314228	Broken transmission.
Panel Degritter # 1	Feb/16/2015	213031	10314226	Out of service.
Panel Degritter # 2	Feb/16/2015	213033	10314227	Out of service.

d) Influent Wet Pit BNR Building

EQUIPMENT	DATE	SAP #	WORK ORDER #	COMMENT
Wet Well Sum Spare Pump	Oct/23/2014	1104906	101010950048	Got burned.
Wet Well Sum New Pump	Oct/23/2014	208444	10101058235	Got burned.

e) BNR Building – Filter Press

EQUIPMENT	DATE	SAP #	NOTIFICATION #	COMMENT
Pump/Motor Sludge # 1	May/20/2015	208767	10331972	Alignment
Filter Press	Jun/25/2013	1107285	10184561	Corroded angular.
Filter Press	Mar/31/2015	1107285	10322248	Pulley cleaning.

f) BNR Building – Clarifier 2

EQUIPMENT	DATE	SAP #	NOTIFICATION #	COMMENT
Transmission – Clarifier Arm	May/20/2015	209654	10331988	Motor got burned.

g) Other

EQUIPMENT	DATE	SAP #	NOTIFICATION #	COMMENT
Interior Illumination	May/20/2015	-----	11620758	Out of service.
Exterior Illumination	Mar/26/2015	-----	11620758	Out of service.

h) The following equipment/unit was hand-written added to Form AAA-48:

EQUIPMENT	DATE	SAP #	NOTIFICATION #	COMMENT
Water fountain – Office	Feb/5/2015	-----	10312404	Out of service.
Blower – Spare	Mar/29/2015	208951	10322246	Out of service.
Drainage Valve – Digester to Influent	Apr/23/2015	212617	10326869	Out of service.

i) The following equipment/unit was not hand-written added to Form AAA-48, but will be added to it:

EQUIPMENT	DATE	SAP #	NOTIFICATION #	COMMENT
Mixers Control Panel	-----	213039	-----	Out of service.

D. Documentation available demonstrates that the last Chlorine Safety Management Refresher Training was taken by the operator on February 26, 215.

V. CONCLUSION

Please note that Part C.5 of Attachment I of the permit requires the permittee to properly operate and maintain all facilities and systems for collection and treatment (and related appurtenances) which are installed or used to achieve compliance.